

NEW RHYNCHOPHORA (COLEOPTERA) FROM
WESTERN NORTH AMERICA

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Tribe Alophini

Genus *Lepidophorus* Kirby

Synoptic Key

1. Scales on pronotum densely and uniformly arranged; setæ of upper surface conspicuously suberect on elytral declivity only 2
 Pronotal scales arranged in a median and lateral stripes, the intervening area quite bare of scales; setæ of pronotum, as well as of entire elytra, conspicuous and more or less semi-erect throughout 3
2. Elytral intervals entirely flat, setæ equally evident on all intervals; abdomen densely clothed with scales and sparsely pilose, the last ventral more finely and densely pilose and with a shallow impression at most. Alaska.....
*lineaticollis* Kirby
 Elytral intervals slightly convex apically. Setæ distinct only on alternate intervals; abdomen clothed with scales and with scattered, prostrate setæ, the last ventral of males with a deep fovea at apex. Mount Rainier, Washington
*rainieri* n. sp.
3. Elytra with intervals all more or less flattened, the setæ present on all intervals anteriorly but only distinct on alternate ones posteriorly; abdomen sparsely setose, the last ventral broadly and shallowly impressed. New York, Maryland, West Pennsylvania, and Virginia.....*setiger* Ham.
 Elytra with intervals alternately elevated, the setæ present on all intervals anteriorly but absent on alternate ones on elytral declivity. Abdomen moderately scaly and setose. Coastal area of Washington and Oregon.....*alternatus* n. sp.

***Lepidophorus rainieri* Van Dyke, new species**

Oval, convex, piceous, antennæ and legs reddish brown; densely clothed above with small, round brown or white scales, the latter forming median and lateral stripes on the pronotum and a more or less nebulous marking along the sides of the elytra, as well as being more or less scattered over the disk; setæ short, semi-erect on the head, scattered and prostrate over the pronotum, and in rows on the alternate intervals of the elytra, quite prostrate in front and semi-erect on the declivity. Beak dilated apically, somewhat flat-

tened above and rugosely punctured. Prothorax as broad or broader than long, convex; sides narrowed at base, somewhat parallel at middle and narrowed and constricted at apex; disk rather densely and coarsely punctured, the punctures in fresh specimens concealed by the scales. Elytra not quite twice as wide as prothorax; striæ broad and flat in front and faintly convex toward apex, these striæ well impressed and rather closely punctured with somewhat elongate punctures, each of which bears a small scale. Beneath rather densely clothed with silvery scales and short, recumbent and scattered setæ; last ventral segment deeply impressed near apex in males and more shallowly in the females. Length, 5 mm.; breadth, 2.25 mm.

Holotype, allotype (Nos. 2632, 2633, Mus. Calif. Acad. Sci.), and several designated paratypes from a series of eighteen specimens collected by myself from beneath stones, July 14-31, 1905, at about 6000 feet altitude, on the slopes of Paradise Valley, Mount Rainier, Washington, in my collection.

This species rather closely resembles the well-known *lineaticollis*, the type of the genus, but is in general less robust, has the elytral setæ only on the alternate elytral intervals, the ventral setæ less hairlike and in the female less dense, and the last ventral segment deeply impressed in the male.

Lepidophorus alternatus Van Dyke, new species

Oval, convex; brown, legs and antennæ somewhat rufous; head and elytra rather densely clothed above with small, round brown or yellowish white scales, the scales of the pronotum light and mostly condensed into a median and lateral stripes, the lighter scales also more evident along the sides of the elytra and in irregular transverse patches near the center of the disk; setæ rather conspicuous, slightly elevated, scattered over the head and pronotum, more evidently elevated and arranged in rows on the alternate elytral intervals, with a few scattering ones on the even intervals anteriorly. Beak dilated apically, somewhat flattened above, with, at times, an indistinct median crista, and rugosely punctured. Prothorax slightly longer than broad, convex; sides evenly arcuate, narrower in front than at base but not constricted; disk densely, coarsely, somewhat cribrately punctured. Elytra less than twice as wide as prothorax, the alternate intervals somewhat elevated and convex throughout, the even intervals flattened in front and slightly convex behind; striæ evidently impressed and rather closely punctured with deep, round punctures, from each of which projects a short setiferous scale. Beneath moderately densely clothed with whitish scales and recumbent, scattered yellow setæ, the last ventral segment but shallowly impressed near the apex even in the male. Length, 5 mm.; breadth, 2.5 mm.

Holotype (No. 2634, Mus. Calif. Acad. Sci.), and numerous designated paratypes from a series of forty-four specimens collected by myself at Forks, Clallam County, Washington, July 2 and 5, 1920, in my collection. These were beaten from low herbage on the margins of a boggy clearing in the forest. I have also another specimen which I collected at Cannon Beach, Oregon, June 9, 1926, and in the California Academy collection there is another series of specimens taken by Mr. E. P. Van Duzee at Forks, Washington, on the same date that I collected my specimens.

This species rather closely resembles *setiger*, with a specimen of which, kindly presented by Dr. H. C. Fall, it has been carefully compared. It differs by being much larger and more robust, with the alternate elytral intervals more or less distinctly elevated, the setæ coarser and more clubbed, and the funicle of the antennæ longer, the first and second segments distinctly longer than in the other, and the outer segments less transverse. The closely related *setiger* and *alternatus* are probably species of the dense forests while the equally closely related *lineaticollis* and *rainieri* are restricted to the more open country.

Tribe Myrmecini (Otidoccephalini)

Myrmex (*Otidoccephalus*) *ventralis* Van Dyke new species

Narrow and elongate, black, moderately clothed above with soft white pile, erect and directed forward on the pronotum and loosely appressed on the elytra, and with rows of short, erect, and sparsely placed black setæ also on the elytra. Head moderately coarsely, densely punctured; eyes of moderate size and slightly convex; beak short, robust, bistriate laterally, the median carina extending from between the eyes almost to the apex; antennæ piceous, the club elongate and robust. Prothorax nearly one-fourth longer than broad, convex; sides moderately arcuate at center; disk coarsely, densely, somewhat cribrately punctured, a well-defined median crista extending from base almost to apex. Elytra somewhat more than twice as long as prothorax, about one-fourth broader at base than prothorax, with sides almost straight or just perceptibly arcuate and diverging to posterior third from whence they are gradually rounded to apex; disk moderately finely, closely, and irregularly punctured. Beneath rather densely punctured and densely clothed with sub-recumbent, radiate-pectinate, white hairs; each femora with distinct

tooth, and the front tibiæ slightly sinuate within. Length (without beak), 6 mm.; breadth, 2.5 mm.

Holotype (No. 2635, Mus. Calif. Acad. Sci.), a unique, collected in the Chisos Mountains, Brewster County, Texas, July 18, 1921, by Mr. C. D. Duncan.

This species approaches quite closely to *M. estriatus* (Casey), but it differs by being black, not rufous or rufopiceous, more elongate and narrower, with less globular after-body, the white pile finer and denser above, the elytral setæ shorter and more numerous, the pronotal punctures more uniformly disposed, the elytral punctuation finer and the underside densely clothed throughout with short, radiate-pectinate hairs, whereas in the other the pile is sparse and similar to that of the upper surface except for an occasional pectinate-radiate hair forward and at sides.

***Myrmex dimidiatus* Van Dyke, new species**

Narrow and elongate, the elytra and ventral surface of abdomen black, the remaining portion of body rufous, tibiæ somewhat darkened; body rather sparsely clothed with long, erect black hair, on the elytra arranged in rows on the intervals, the hair of the middle and hind legs mostly white, and the scutellum, meso- and metapleuræ densely clothed with recumbent radiate-pectinate white hairs. Head rather sparsely punctured; eyes moderately convex and well separated; beak short, robust, bistriate laterally and sparsely punctured basally, the median carina well marked at base only; antennæ rufous, club elliptical. Prothorax one-third longer than broad, convex; sides moderately arcuate at center; disk sparsely, rather finely punctured, more closely at base and apex. Elytra twice as long as prothorax, slightly broader at base than prothorax though one-fourth broader at middle; sides sinuate and diverging behind humeri, arcuate at center and converging to apex; disk with striæ faintly impressed and with rows of well-marked, elongate, rather closely placed punctures, the intervals flat, with rows of finer and more sparsely placed punctures. Beneath rather finely, sparsely punctured and shining. Length, 4.75 mm.; breadth, 2 mm.

Holotype (No. 2636, Mus. Calif. Acad. Sci.), a unique from the Davis Mountains, Texas, collected May 14, 1927, by Mr. J. O. Martin.

This bicolored species could only be confused with others of like coloration; *dichrous* (Lec.) from Florida has the base of the elytra also rufous, the punctures of prothorax and elytra denser and coarser and with no erect pile; *basalis* (Schæf.)

from Arizona, has the red color limited to the base of elytra, and is stouter and clothed with a double type of pile above; while *diversicolor* (Champ.), from Central America, also has the red color more limited, and differs otherwise.

MYRMEX OCTOLINEATUS (Champ.)

A number of specimens of this Mexican species are in the collection of the California Academy of Sciences, taken at the following localities in Arizona: fourteen miles east of Oracle, July 27, 1924, by Mr. E. P. Van Duzee; and Texas Cañon, Chiricahua Mountains, September 8, 1927, by Mr. J. A. Kusche. This species is not included in the Leng catalogue.

MYRMEX ESTRIATUS (Casey)

The California Academy of Sciences has specimens of this species from southwestern Texas, southwestern Colorado, the Chiricahua Mountains of Arizona, as well as from New Mexico. Specimens collected near Los Vegas Hot Springs, New Mexico, by Mr. Weld were bred from woody stem galls on oak.

MYRMEX ARIZONICUS (Schaefer.)

A series of this species was taken near Camp Potwisha, Sequoia National Park, California, during May 1929. It was first beaten from mistletoe. *Phoradendron villosum* Nutt., on white oak, *Quercus lobata* Nee, by Mr. Walter Lammerts, and later was dug out from its pupal chambers in the stems of the mistletoe.

Tribe Zygotini

Cylindrocopturus vanduzeei Van Dyke, new species

Moderately elongate, the entire underside including the feet and most of the dorsal surface clothed with large, chalky white scales, opalescent in strong light; the remaining surface ornamented with ochraceous scales which are condensed near the anterior margin of the prothorax at the angles, and on either side of the median line of the disk, more broadly near the base; they form an irregular band extending from the base of the elytra at the outer side of the humeri in the form of a lunule directed toward the middle of the suture, thence zigzagging backward almost to the apex, leaving white areas in the form of a broad triangle at the base, a band three intervals wide on either side of the suture, and a small triangular spot at the sides posteriorly. Head with eyes well separated, the interocular area narrowest at middle, the beak robust, rather coarsely punctured

at the sides from base to apex, the second funicular segment just perceptibly shorter than the first and the antennal club moderately wide. Prothorax as long at sides as broad, the sides slightly narrowing forward and sinuate. Elytra gradually arcuately narrowed posteriorly, suddenly depressed before the apex, with apical margin slightly elevated. Hind margin of second ventral segment faintly bituberculate near the middle. Length, 4 mm.; breadth, 1.75 mm.

Holotype (No. 2637, Mus. Calif. Acad. Sci.), and one paratype belonging to the California Academy of Sciences, collected by Mr. E. P. Van Duzee at Independence, Inyo County, California, June 15, 1929.

This very pretty little species should perhaps follow *princeps* Fall, according to his key.¹ It is also closely related to the recently described *mediatus* Carr, but is smaller, with wider interocular area, and larger scales.

Cylindrocopturus crassus Van Dyke, new species

Robust, subelliptical; black, the underside clothed with slaty gray scales of various shades, the upper with dark slaty colored scales except for a few white scales forming a line along the lateral margin of the pronotum, and on the elytra a spot at the humeri, short lines near the scutellum on the second and third intervals, a short transverse bar at the posterior third from the first to the third or fourth interval, a small spot on the eighth slightly in advance of the preceding, and a series of slaty gray scales extending obliquely outward and backward from just back of the scutellar white scales. Head with eyes well separated, the interocular space narrowest at center and rapidly widening both above and below; beak robust, rather coarsely punctured at the sides from base to apex, second funicular segment slightly shorter than first, and antennal club robust and fusiform. Prothorax slightly broader than long, sides somewhat arcuate posteriorly, narrowed and constricted in front. Elytra rather broadly arcuate at sides, faintly sinuate posteriorly, the disk distinctly convex, compressed before the apex, and the apices slightly divergent. Hind margin of second ventral segment faintly bituberculate at center, each tubercle with a tuft of erect scales. Length, 3.5 mm.; breadth, 1.75 mm.

Holotype (No. 2638, Mus. Calif. Acad. Sci.), and five paratypes from a series of eight specimens, two injured, under No. 29,441, submitted to me by the California State Department of Agriculture through Mr. Hartford Keifer. They were

¹ New species of American Coleoptera of the Tribe Zygopini, by Henry C. Fall, Trans. Am. Entom. Soc., Vol. XXXII, pp. 53-61, 1906.

reared from chrysanthemum in San Mateo County, California, November 18, 1929.

This robust and elliptical species may follow the preceding, but it has a facies all its own. The markings of the elytra are variable, the white scales often being more numerous than in the type and the slaty gray scales sometimes covering most of the disk.

***Cylindrocopturus hemizoniæ* Van Dyke, new species**

Moderately elongate, black, the underside clothed with grayish and grayish brown scales; upper side clothed with brown scales of several shades except for a series of white scales on the occiput, at times forming a stripe down the middle and along the sides of the pronotum, a spot at the humeri, one on the third and fourth intervals behind the middle and one on the eighth interval slightly in advance of the preceding, the sutural intervals also often of a light shade. Head with eyes well separated, the interocular space gradually narrowed to the center, the beak robust, coarsely and closely punctured on sides toward base, more finely apically, the second segment of funicle almost as long as the first, the antennal club robust. Prothorax as long as broad, sides subparallel behind, slightly sinuate and narrowed or slightly constricted in front. Elytra with the sides moderately arcuate, somewhat sinuate before the middle, the disk flattened, and the apical area depressed. Hind margin of second ventral segment nontuberculate. Tarsi with but a few gray scales on second segment. Length, 4.25 mm.; breadth, 1.75 mm.

Holotype (No. 2639, Mus. Calif. Acad. Sci.), and several designated paratypes from a series of thirty-two specimens reared at San Jose, California, April 15 and May 1, 1928, by Mr. L. M. Smith. This species lives in the stems of one of our native tarweeds, *Hemizonia congesta* DC.

This species is, of course, variable as to size, most specimens being somewhat smaller than the type, but it is also variable as to color, the gray or lighter brown scales often replacing most of the dark brown of the elytral disk. A superficially close resemblance in size and shape is shown to *C. longulus* Lec., but it differs by having a shorter, more robust and heavily punctured beak, more widely separated eyes, the elytral intervals flat, never convex, and the darker scales dull, never coppery as they are in *longulus* and its varieties.

***Cylindrocopturus cretaceus* Van Dyke, new species**

Small, elongate, clothed with large chalky white scales over the

undersurface and much of the upper, the disk of pronotum with two broad bands of somewhat brownish scales, the propleuræ and disk of elytra also often similarly clothed to a great extent as in the type, though sometimes with but a minimum of brown scales. Head with eyes fairly well separated, the interocular space narrowest at middle; beak stout, slightly cristate and rather coarsely, closely punctured from base to apex; second funicular segment subequal to first, the antennal club well formed. Prothorax as long as broad; sides slightly sinuate and subparallel, constricted near apex. Elytra with sides somewhat arcuate, gradually narrowing posteriorly, the disk flattened and the apex rather suddenly depressed. Hind margin of second ventral segment nontuberculate. Length, 3 mm.; breadth, 1.25 mm.

Holotype (No. 2640, Mus. Calif. Acad. Sci.), collected fourteen miles east of Oracle, Arizona, July 27, 1924, by Mr. E. P. Van Duzee, and two paratypes, one collected at the same locality as above by Mr. J. O. Martin, the other at Nogales, Arizona, August 27, 1906, by Mr. F. W. Nunenmacher, all in the collection of the California Academy of Sciences.

This small elongate species belongs near *longulus*, but it is not only generally smaller but is without bronzed scales, with the white scales more densely, uniformly placed and larger, the interocular area broader and with its lateral boundaries more arcuate, the beak stouter and more curved, and the entire disk in general flatter. There is, as usual, some variation, the paratypes being smaller than the type and more uniformly white in color.

Cylindrocopturus unicolor Van Dyke, new species

Elongate, subparallel, clothed above as well as beneath with scales of a uniform white color. Head with eyes rather widely separated, the interocular space two-thirds the width of an eye, depressed so as to form a shallow sulcus between the eyes, with a minute longitudinal crista above and as usual narrowest in the middle; beak stout, distinctly arched and rather coarsely punctured from base to apex; second funicular segment just perceptibly shorter than the first, the antennal club well formed. Prothorax slightly broader than long, with sides almost parallel for basal two-thirds and faintly sinuate as well, narrowed and constricted at apex, the disk barely convex and cribrately punctured, the punctures in most cases concealed by the scales. Elytra with sides almost parallel at basal half, thence gradually arcuately narrowed posteriorly and sinuate slightly in advance of apex, the disk flattened and gradually declivous near

apex. Hind margin of second ventral segment nontuberculate. Length, 4 mm.; breadth, 1.5 mm.

Holotype in my collection (No. 2641, Mus. Calif. Acad. Sci.), taken by myself at San Francisco, California, and paratype, somewhat smaller, collected by Dr. F. E. Blaisdell at Del Monte, Monterey County, California, July 25, 1924, in his collection.

This species simulates *cretaceus* in general shape and appearance except that it is proportionally longer, with the scales smaller, of a more uniform color, more pearly and less of a chalky white, the interocular space broader, the beak more robust and arched, the elytra gradually declivous to apex and the ventral segments likewise more gradually narrowed. Its more parallel shape, more flattened dorsum, lack of color pattern, broad interocular space, and more robust and arched beak will also readily separate it from any of the phases of *longulus*.

CYLINDROCOPTURUS LONGULUS (Lec.)

After examining a large series of specimens from many places in the western part of our country, and with a knowledge of their food trees furnished by Dr. H. E. Burke and others, I am forced to conclude that this species is not only of wide distribution but very variable as to color pattern and quite catholic as regards its food plants. I thoroughly agree with Fall² in placing *nubilatus* (Casey), *subcupreus* (Casey), *obscurellus* (Casey), *mucidus* (Casey), and *dispersus* (Casey) with *longulus* (Lec.) as mere color phases and would even go further and include *lunatus* (Lec.). All of these breed in coniferous trees. Typical *longulus* breeds in Douglas fir, *Pseudotsuga taxifolia* Britt, the lodgepole pine, *Pinus murrayana* Balf., and the true fir, *Abies*. Specimens answering perfectly to the original description have been bred from grand fir, *Abies grandis* Lindl., on Vancouver Island, by Mr. A. N. Chells, and from lodgepole pine in the Yellowstone Park by Dr. H. E. Burke. Typical *nubilatus*, which differ only in having the white scales more diffused, have been taken along with *longulus* from the Monterey pine, *Pinus radiata* Don., at Carmel, California, close to the type locality for the former. Other specimens

² Trans. Amer. Ent. Soc., Vol. XXXII, p. 54, 1905.

some of which agree with the description of *mucidus*, have been taken on Mount Hood, Oregon, at various places in northern California, as well as at Idlewild on Mount San Jacinto in southern California, from the western yellow pine, *Pinus ponderosa* Dougl. Dr. Burke has also submitted two specimens which belong with these, one taken from sugar pine, *Pinus lambertiana* Dougl., the other from the lodgepole pine. A beautiful little variety, entirely bronzed above except for a short white bar back of the middle of the elytra, has been bred at Palo Alto, California, by Dr. Burke from both the Douglas and the white fir, *Abies concolor* Lindl. and Gord., and I have seen specimens of the same from Marin County, California, as well as from Corvallis, Oregon, where presumably it lives on the Douglas fir. Specimens which tally exactly with the description of *lunatus* (Lec.) have also been taken in Marin County as well as elsewhere. This species, judging from the material before me, appears thus to vary from specimens almost entirely clothed above with white scales to those almost entirely bare of white scales, with the true *longulus* as the intermediate color phase.

Tribe Cryptorhynchini

Conotrachelus cinereus Van Dyke, new species

Robust, piceous, the elytra moderately densely clothed with small, narrow, light brown and broader white scales, the latter assembled to form more or less transverse spots here and there over the surface, each elytral interval also with a row of sparsely placed, minute, erect white setæ, the rest of the surface more sparsely clothed, the prothorax also ornamented with two white spots and the femora banded with white at the middle. Head moderately coarsely, densely punctured; a well-defined fovea between the eyes; the beak long and slender, slightly less than one-half the length of the body, distinctly striate at base and rather finely punctured; the antennæ inserted at middle of beak, first funicular segment but four-fifths the length of the greatly elongated second segment, the third and fourth together about equal in length to the second, the third a bit longer than the fourth. Prothorax slightly wider than long, the sides broadly arcuate to anterior third, then suddenly constricted and sinuate to lobed apex; the disk with a well-defined, complete median longitudinal carina, and the surface rather coarsely, closely and somewhat cribrately punctured. Elytra about one-third broader than prothorax and two and a quarter times as long, the humeri prominent but rounded, sides arcuate, and the posterior two-thirds gradually nar-

rowed to rounded apex; disk with third, fifth, seventh, and ninth intervals elevated and cristate almost to apex, the even intervals flat, and the striæ faintly impressed, with rather large and closely placed punctures. Beneath coarsely, closely punctured, a deep triangular impression on last ventral. Mesosternum protuberant in front. Front and middle femora slightly prominent where tooth should be, and hind femora with a distinct but not prominent tooth. Claws divergent and toothed. Length, 6.5 mm.; breadth, 3.25 mm.

Holotype (No. 2642, Mus. Calif. Acad. Sci.), a unique specimen collected at Austin, Texas, December 7, 1928, by Mr. J. O. Martin.

This rather large and robust species belongs in the *cratægi* group of the genus and is perhaps nearest to *adspersus* Lec. and *invadens* Fall, but differs from both by the shape of the prothorax, somewhat cordate elytra, and coloration, as well as by the distinctly cristate alternate elytral intervals and broad, flattened, even intervals. The distinctly striate beak and different lengths to the funicular segments also differentiates it. It is strange that such a conspicuous species from eastern Texas should have remained so long unknown.

Conotrachelus asperatus Van Dyke, new species

Short, robust, dark brown, sparsely clothed above with brown and yellowish white scalelike hair, the latter more or less arranged in transverse bars across the elytra, and with short erect setæ, the shorter inclined forward on the pronotum, and the longer inclined backward and arranged in rows on the intervals. Head moderately closely, coarsely punctured, a yellowish squamous hair arising from each puncture; beak robust, slightly arcuate, as long as head and prothorax, carinate above, tricarinate laterally, moderately punctured and with short semi-erect setiferous hairs; antennæ inserted at outer third of beak, second funicular segment slightly longer than first, third and fourth short, together but little longer than second. Prothorax about as wide as long, sides almost straight or faintly arcuate at basal two-thirds and suddenly constricted near apex; disk coarsely punctured, cribrate and without carina. Elytra two-fifths wider than prothorax and over twice as long, cordiform, humeri prominent but rounded, sides arcuate and gradually narrowed from base to apex; disk with alternate intervals slightly elevated and carinate, the even intervals flat, with a row of coarse, well-separated punctures on either side, the basal margins of each puncture elevated so as to form short, transverse, smooth rugæ or asperities. Beneath very coarsely, closely punctured, a short hair arising from each puncture. Mesosternum prominent but not protuberant. All femora with a

single large tooth, tarsal claws divergent and toothed. Length, 5 mm.; breadth, 2.5 mm.

Holotype (No. 2643, Mus. Calif. Acad. Sci.), a unique collected at an altitude of 9000 feet, in Bear Foot Park, Chiricahua Mountains, Arizona, July 29, 1927, by Mr. J. A. Kusche, in my collection.

This species, because of its elytral asperities, is readily separated from its somber relatives. Because of its cribrate and noncarinate pronotum it should come before *cribricollis* (Say) which it simulates in size and general appearance though it is more elongate, with the punctures of pronotum not quite so large and the alternate elytral intervals evidently elevated and carinate.

Conotrachelus setiferous Van Dyke, new species

Rather small, short and robust, brown, the upper surface clothed with brown and gray appressed scalelike hair, and longer, erect, coarse setæ, shorter on head and pronotum and inclined forward and longer on the elytra, slightly inclined backward and arranged in rows on the elytral intervals. The gray hairs are rather generally dispersed though most noticeable on the front of the head, in the form of an arcuate line near the sides of the pronotum, and in spots at base of the third intervals; they are more or less massed about the humeri and along the sides, and form several evident spots on the alternate intervals near the declivity of the elytra, thus giving them a tessellated appearance. Head closely, coarsely punctured, the squamous hair arising from punctures; beak robust, slightly arcuate, as long as prothorax, carinate above and at sides, and punctured laterally in basal portion; antennæ inserted at outer third of beak, second funicular segment about as long as first. Prothorax broader than long, sides rather broadly arcuate, constricted near apex, the disk coarsely, cribrately punctured, and without a carina. Elytra two-fifths wider than prothorax and nearly three times as long, humeri prominent, rounded, sides arcuate and gradually narrowed toward apex, with a slight sinuation just before the apex; the disk with striæ shallow but coarsely, closely punctured; all intervals moderately equally elevated and convex. Beneath coarsely punctured, with short squamous hairs arising from each puncture. Mesosternum prominent, slightly protuberant. All femora armed with a single, well-defined tooth, tarsal claws divergent and toothed. Length, 4.5 mm.; breadth, 2.5 mm.

Holotype (No. 2644, Mus. Calif. Acad. Sci.), a unique collected at Patagonia, Arizona, August 3, 1924, by Mr. E. P. Van Duzee.

This species belongs near the preceding, but can readily be separated by its smaller size, the presence of very robust, erect setæ, equally elevated elytral intervals, the absence of asperities, more transverse prothorax, shorter body, and the color pattern. It closely simulates *cribricollis* in size, shape and color pattern, but has a more transverse prothorax, less coarse prothoracic punctures, and longer setæ.

***Conotrachelus nigromaculatus* Van Dyke, new species**

Short and robust, reddish brown with an irregular black area along the anterior half of the elytral suture; somewhat expanded in front and widened out into a transverse bar behind the middle; the upper surface sparsely clothed with white and yellowish white scale-like hair, most evident about the humeri and apical declivity, with fine setæ, sparse, short and inclined forward on head and pronotum, and longer, slightly bent backward and arranged in rows on the elytral intervals. Head coarsely, closely punctured, the beak robust, slightly curved, as long as head and prothorax, carinate above and laterally and coarsely punctured except at apex; antennæ inserted at outer third, the second funicular segment somewhat longer than first. Prothorax somewhat broader than long, the sides arcuate and narrowed from base and constricted before apex; the disk coarsely, cribrately punctured and without a carina. Elytra two-fifths wider than prothorax and about twice as long, the humeri prominent but rounded, the sides arcuate and gradually narrowed toward apex, the disk with striæ coarsely and shallowly punctured, all intervals moderately elevated, with the alternate ones somewhat carinate. Beneath coarsely punctured, with short hair arising from each puncture. Mesosternum prominent and but slightly protuberant. All femora unidentate, the tarsal claws approximate and cleft. Length, 4.5 mm.; breadth, 2.5 mm.

Holotype (No. 2645, Mus. Calif. Acad. Sci.), and one paratype, collected at Silver Creek, Chiricahua Mountains, Arizona, altitude 4500 to 6000 feet, October 7, 1927, by Mr. J. A. Kusche, in author's collection.

This species belongs near *echinatus* Horn, but is considerably larger, differently colored and with alternate elytral intervals evidently carinate.

***Rhyssematus beutenmuelleri* Van Dyke, new species**

Short, oval, robust; black, antennæ and tarsi rufous, subopaque, legs, undersurface, and much of elytra clothed with oval gray scales. Head rather coarsely punctured, partly clothed with gray scales, with a few erect black scales in front; eyes separated by a distance

equal to their own breadth, a small fovea between eyes; beak longer than prothorax, not depressed at base, grossly punctured basally and smooth apically. Prothorax one-fourth broader at base than long, sides arcuate and converging from base to beyond middle, thence sinuate and constricted to apex, the disk with well-elevated central crista and elsewhere rather coarsely and densely punctured, without trace of strigæ but with numerous erect black scales (it is possible that in fresh specimens these clothed all of the disk). Elytra about one-sixth wider than prothorax and twice as long, sides gradually arcuate from base almost to apex, where somewhat constricted; disk with suture slightly elevated and the third, fifth, seventh, and ninth intervals sharply cristate from base to apex, with two rows of coarse, deep, oblong punctures between the cristæ; the general surface finely granular and subopaque. Body beneath somewhat coarsely, closely punctured and opaque. Intermediate and posterior tibiæ not toothed or angulate some distance before the apex, each femur with a moderate tooth, the anterior coxæ fairly well separated. Length, 4.5 mm.; breadth, 3.75 mm.

Holotype (No. 2646, Mus. Calif. Acad. Sci.), a unique specimen in my collection, taken in the Black Mountains of North Carolina, May 30, 1912, by Mr. William Beutenmueller.

This rather small black species can readily be separated from any of our other eastern species by its more or less uniformly punctured pronotum, lack of pronotal rugæ and the presence of scaly vestiture.

***Rhysematus arizonicus* Van Dyke, new species**

Moderately elongate, oval, robust; black, antennæ and tarsi rufopiceous, somewhat shining, the elytra, legs and undersurface sparsely clothed with very fine and short white hair. Head moderately coarsely and closely punctured, a yellowish scalelike hair arising from each puncture; eyes very narrowly separated; beak not longer than prothorax, robust and but slightly curved, not depressed at base, coarsely punctured throughout basal area, smoother and more finely, sparsely punctured toward apex, with a sharply defined medial carina and several less distinctly marked lateral ones near the base. Prothorax twice as broad at base as long, sides slightly arcuate and rapidly converging toward apex before which it is slightly constricted, the disk with fine though distinct and complete median crista and numerous well-defined irregular though generally longitudinally arranged rugæ, more prominent at sides. Scutellum finely punctured. Elytra slightly wider at humeri than prothorax and about three times as long; sides sinuate posterior to humeri, thence gradually arcuately narrowed to base; disk with suture slightly elevated and with third, fifth, seventh, and ninth intervals cristate

from base to apex; eighth and tenth cristate at base, with two rows of coarse, deep oblong punctures between the cristæ; general surface irregularly punctured and rugose. Body beneath coarsely and rather closely punctured, the last ventral segment much more finely and closely punctured. Front coxæ slightly separated, each femur with a well-defined tooth; the intermediate and posterior tibiæ without defined teeth on outer surface before apex. Length, 7 mm.; breadth, 4.5 mm.

Holotype (No. 2647, Mus. Calif. Acad. Sci.), and paratype from Prescott, Arizona, collected August 13, 1909 and June 20, 1909, by Mr. J. A. Kusche, and two paratypes from Dewey, Arizona, in my collection.

This species does not fit the description of any of the Mexican species and among our own species would come closest to *lineaticollis* Say, from which it differs by being slightly larger, more elongate, with the sides of the prothorax straighter and more oblique, the dorsal crista better defined, the elytra distinctly rugose and shining, not minutely granular and sub-opaque, and by having a fine though sparse pubescence.

RHYSSEMATUS ACUTECOSTATUS Champ.

This large Mexican species may now be added to our list. It differs from the preceding by being slightly larger, more piceous, with the head and beak at base coarsely, rugosely punctured, the frontal striæ less complete and more oblique, the minute hair yellowish, the middle and posterior tibiæ toothed or angulate on their outer edge some distance before the tip and with the space between this and the outer apical angle more or less concave and ciliate. A specimen of this species is in the collection of the California Academy of Sciences which was taken at Badger, Santa Cruz County, Arizona, July 31, 1924, by Mr. J. O. Martin.

Chalcodermus martini Van Dyke, new species

Short, oval, convex, black, antennæ rufopiceous, elevated portions slightly shining, and conspicuously clothed with a sparse, erect, white setiferous pile, giving the insect a grayish appearance. Head alutaceous, rather coarsely, closely punctured in front; beak distinctly longer than prothorax, slightly curved, coarsely punctured at base and sides; eyes separated in front by about one-half the breadth of the beak. Prothorax one-fourth wider at base than long; sides slightly arched and convergent until near base, where rather suddenly con-

stricted; disk very coarsely punctured, the intervals between punctures elevated into a series of longitudinal rugæ at middle and irregular reticulations laterally, the reticulation gradually disappearing at sides beneath. Elytra somewhat over one-fifth broader at base than prothorax, sides almost parallel at basal two-thirds, thence gradually rounded to apex; disk with rows of very large, deep, and rather closely placed punctures, the intervals slightly elevated and convex and sparsely, very finely punctured. Beneath coarsely punctured, the last ventral segment more finely and closely. Length (without beak), 4.75 mm.; breadth, 2.75 mm.

Holotype (No. 2648, Mus. Calif. Acad. Sci.), a unique collected by Mr. J. O. Martin in Sabino Cañon, Santa Catalina Mountains, Arizona, August 13, 1924.

This species, because of its conspicuous cinereous vestiture, deep punctuation, and well-elevated intervals, stands apart from all of its fellows and thus should be easily recognized. It seems to resemble no Mexican species.

TYLODERMA MORBILLOSA (Lec.)

This species, described as having been taken in San Francisco, has not since been collected there. Recently, however, it has been secured in numbers by Mr. W. W. Baker of the Western Washington Agricultural Experiment Station near Grand Mound, in western Washington. It is reported as being quite injurious to strawberries.

COPHES GIBBUS Champ.

Three Arizona specimens of this large gray weevil, never before reported from north of Mexico, have recently been seen. The genus is close to *Cryptorhynchus*, but differs primarily by having the anterior tarsi in the males greatly dilated and fringed with long hairs on the inner side. Two of the specimens seen belong to the California Academy of Sciences, one a male, collected by Mr. E. P. Van Duzee near St. Xavier Mission, Tucson, Arizona, July 29, 1924, and the other, a female, collected by Mr. J. O. Martin in Florida Cañon, Santa Rita Mountains, Arizona, August 10, 1924. The third specimen is in the collection of the Oregon Agricultural College and was taken by Prof. W. J. Chamberlin, also in the Santa Rita Mountains and on July 24.

Subfamily Calendrinæ

Calendra (Sphenophorus) sequoiæ Van Dyke
new species

Rather small, somewhat elongated, subparallel; black, varying to reddish; undersurface and more elevated portions of upper shining, the depressed areas velvety (in fresh specimens). Rostrum slightly more than half as long as prothorax, moderately arcuate and compressed. Surface at base rather strongly and numerous punctured, base strongly dilated above scrobes, where it is acutely angled; interocular fossa deep and without channel in front. Front of head rather finely punctured. Prothorax about one-sixth longer than broad, widest at middle; sides slightly arcuate, suddenly and strongly constricted at apex; disk with vittæ well marked, the median Y-shaped, narrowed behind, the arms in front broad and arched to enclose the deep elliptical apical fossa, the lateral vittæ broad and more or less united with the median in front of middle; all vittæ rather finely punctured, the V-shaped depression between them at base very coarsely punctured, elsewhere less coarsely so. Scutellum declivous and channelled. Elytra more than one-sixth broader than prothorax and one-fourth longer, gradually narrowed to apex; disk moderately convex, the striæ fine but coarsely, deeply and somewhat remotely punctured, giving the intervals a crenulate appearance; the alternate intervals broader, distinctly elevated and finely, uniseriately punctured except the third which is biseriately punctured near base; humeral and subapical callosities well marked, smooth and shining. Beneath distinctly punctured throughout, the punctuation closest on metasternum. Legs finely and sparsely punctured, tibiæ feebly fimbriate on inner side, anterior tibiæ with outer angle protuberant, the others obliquely truncate, with inner angle produced into a long spur. Pygidium coarsely, closely punctured behind, more finely in front, and with minute tufts of silvery hair each side of apex. Length (excluding beak), 7.5 mm.; breadth, 3.25 mm.

Holotype (No. 2649, Mus. Calif. Acad. Sci.), and nine paratypes, collected by myself from near Camp Potwisha, altitude 2100 feet, Sequoia National Park, California, June 13, 1929, in my collection.

This species belongs in the *placidus* group of the genus as defined by Chittenden,³ and should perhaps be placed in the series with *neomexicanus* Chitt. and *phæniciensis* Chitt. From the former, the fine punctuation of the pronotal vittæ and the regular and fine punctuation of the elytral intervals will separate it; and from the latter, the elevation of the alternate intervals and coarse strial punctuation will distinguish it.

³ On the species of *Sphenophorus* hitherto considered as *Placidus* Say, Proc. Ent. Soc. Wash., VI, No. 3, pp. 130-137, June 25, 1904.